



EXPERIMENT - 7

Object Oriented Programming Lab

Aim

To create a function power to raise a number m to a power n . The function takes double value for m and integer value for n . Use default value for n to make the function. Calculate the squares when this argument is omitted.

Syeda Reeha Quasar

14114802719

4C7

EXPERIMENT – 7

Aim:

To create a function power to raise a number m to a power n. The function takes double value for m and integer value for n. Use default value for n to make the function. Calculate the squares when this argument is omitted.

Source Code:

```
#include <iostream>

using namespace std;

float power(double base, int powr = 0){
    if (powr == 0) {
        return base * base;
    }
    float res = 1;
    for (int i = 0; i < powr; ++i) {
        res *= base;
    }
    return res;
}

int main(){
    int powr;
    double base;
    cout << "Enter the number whose power you want to calculate:- " << endl;
    cin >> base;
    cout << "Enter the power of the base:- " << endl;
    cin >> powr;
```

```
    cout << "The result of " << base << " to the power " << powr << " is " << pow  
er(base, powr) << endl;  
    return 0;  
}
```

Output:

```
PS D:\sem 4\cpp\oops> cd "d:\sem 4\cpp\oops\" ; if ($?) { g++ power.cpp -o power } ; if ($?) { .\power }
Enter the number whose power you want to calculate:-
2
Enter the power of the base:-
18
The result of 2 to the power 18 is 262144
PS D:\sem 4\cpp\oops> cd "d:\sem 4\cpp\oops\" ; if ($?) { g++ power.cpp -o power } ; if ($?) { .\power }
Enter the number whose power you want to calculate:-
12
Enter the power of the base:-
12
The result of 12 to the power 12 is 8.9161e+12
PS D:\sem 4\cpp\oops> █
```